

The payee travels to any authorized ATM location and accesses the ATM providing the PIN code and any other required validation information. The ATM terminal authenticates the provided information with the payment information stored at the ATM control server. Where the information is validated, the payment request is transmitted to the ATM terminal, which instructs the terminal to dispense the indicated amount. In this manner, the payee is free to use any convenient authorized ATM terminal to collect the cash payment.

Fig. 3 presents a block diagram that builds on the system presented in Fig. 2 by adding support for multiple ATM systems, 201 and 300. At the time the payor makes a payment request, he or she is optionally permitted to indicate the particular ATM terminal, 112 and 308, used to dispense the payment. This terminal data is included in the payment request along with, as indicated above, a data code indicating the terminal type, e.g., ATM system that is the ultimate destination for the payment request.

The payment request is transmitted to the cash payment server 118, where it is passed to the request translation software 209 via its P2P interface 210 for translation. Because this is a heterogeneous computing environment comprising multiple ATM control server types, 114 and 304, each processing payment requests according to a disparate format, the proper ATM control interface, 212 and 302, is selected according to the terminal type data code contained in the payment request. The request translation software 209 processes the terminal type data block of the payment request and determines which interface is a match. This processing may be executed in a parallel or serial manner. Where a match is found, the interface translates the message into the native format of the ATM system it is programmed for. Once the appropriate interface is determined, processing is completed as previously described.

Fig. 4 presents a high-level flow diagram presenting a method of operating
embodiments of the system presented in Figs. 1a through 3. A buyer or payor accesses a P2P
system through the use of P2P client software and generates an account with the system, step
402. The account registration procedure includes, but is not limited to, collecting personal
5 information regarding the payor and the funds source used to make payments for purchases. The
funds source may be, for example, a smart card, a stored value card, a checking or savings
account, credit card, or debit card.

Using the P2P system, the payor selects goods and services for purchase and sets
up a payment, step 404. The P2P system uses the funds source information provided by the
10 payor at the time of registration, step 402, to debit the amount of the transaction from the funds
source, step 406. The payment request is then translated from the native format of the P2P
system into the native format of the ATM system, step 407. The ATM system generates a PIN
code and notification message for eventual transmission to the payee, step 408. The ATM
system also transmits a payment instruction and PIN code to an ATM, step 410, enabling the
15 ATM to dispense the amount of currency contained in the payment instruction when the
associated PIN is entered into the ATM.

The notification and PIN code generated in step 408 are translated from the native
format of the ATM system into the native format of the P2P system, step 412. The P2P system
delivers the notification and PIN code to the payee device, step 414, instructing the payee as to
20 the location of the ATM instructed to dispense the currency for payment. The payee travels to
the location of the ATM and supplies the received PIN code, step 416, which causes the ATM to
dispense the funds.

Fig. 5 is a detailed flow diagram of the method of operation presented in Fig. 4.

Using a computing device as previously described, the payor submits a request for payment via the P2P system, step 502. The request is received by the P2P server and processed by the P2P server software, step 504. P2P server software performs a check to determine if the payor has an account with the system by searching account records, step 506. Where the check fails to uncover a payor account, step 506, the P2P server software executes a new account subroutine that involves the payor answering a series of questions regarding personal information and fund source information, the fund source information used to fund transactions executed through the P2P system, step 508.

When the new account subroutine ends, another check is performed to determine if the subroutine exited properly and all account information was collected, step 510. If the check fails, a third check is performed to determine if a predetermined threshold has been passed, step 511. Where the threshold has not been exceeded, step 511, another iteration of the loop is executed, steps 508, 510, and 511. If the threshold has been exceeded, step 511, the process ends and the payment request is abandoned, step 513.

Where the P2P server software determines that the payor has an account with the system, step 506, a check is performed to determine if the payor has sufficient funds available in the designated funds source to fulfill the payment request, step 512. If sufficient funds are unavailable, step 512, a check is performed to determine if a predetermined threshold has been passed, step 514. Where the threshold has not been exceeded, the software generates a request for the payor to provide additional funds or additional fund sources in order to fund the payment request, step 516. The loop is reiterated until either the threshold is exceeded, step 514, causing